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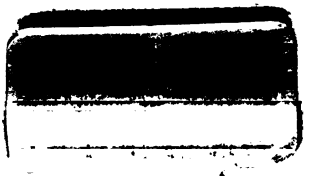

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THE NATIONAL FRUIT AND CIDER INSTITUTE: ITS ORIGIN AND OBJECTS.

By A. E. BROOKE-HUNT.

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THE

NATIONAL FRUIT AND CIDER INSTITUTE:

ITS ORIGIN AND OBJECTS.

THE genesis of the movement which has resulted in the formation of the National Fruit and Cider Institute was, as every reader of this Journal should know, the initiation of research into matters relating to the manufacture of cider by 'the Squire' of Butleigh in 1893. From that season down to the season of 1902-3 the work was carried on at Butleigh under the direction of Mr. F. J. Lloyd, and has, from year to year, been duly chronicled in the pages of this Journal whilst reference has also been made to it in an article contributed by Mr. Neville Grenville to the Journal of the Royal Agricultural Society of England for 1901. Furthermore, a full Report on the investigations thus carried out has recently been prepared by Mr. Lloyd and published by the Board of Agriculture.

From the commencement, the work has been financially supported both by the Bath and West Society and by the Board of Agriculture, although the earlier grants made by the Board in respect of this particular work were not specifically allocated towards it, but were merged in the general grant then made to the Society in respect of a good deal of educational work at that time undertaken by it. For the last four years, ending with March, 1903, the grant from the Board has been 100*l.* a year.

It is unnecessary to make further reference to the early history of the movement, of which the object was the laudable one of reducing the manufacture of cider to a definite method and system, but the past and the present may be linked together by quoting the following short paragraph from the educational Report of the Board of Agriculture for 1893–4, page 21. After reference to the other work undertaken by the Bath and West Society, it was stated that—

BATH AND WEST AND SOUTHERN COUNTIES SOCIETY

FOR THE

Encouragement of Agriculture, Arts, Manufactures and Commerce.

TERMS OF MEMBERSHIP.

ANNUAL SUBSCRIPTIONS.

Ordinary Members, not less than £1
Tenant farmers, the rateable value of whose holdings does not exceed £200 a-year, not less than 10/-

Governors, who are eligible for election as President or Vice-President, and who subscribe not less than £2, are entitled, in addition to the privileges below stated, to an extra Season Ticket for the Annual Exhibition, the Grand Stand, &c. Governors subscribing more than £2 are entitled to a further Ticket for every additional £1 subscribed.

Members subscribing less than £1 are entitled to all the privileges of Membership except that of entering Stock at reduced fees, and their admission Ticket for the Annual Show is available for *one day only*, instead of for the whole time of the Exhibition.

LIFE COMPOSITIONS.

Governors may compound for their Subscriptions for future years by payment, in advance, of £20; and Members by payment, in advance, of £10. Governors and Members who have subscribed for twenty years may become Life-Members on payment of half these amounts.

SUMMARY OF MEMBERS' PRIVILEGES.

a. To receive annually the Society's *Journal* free of expense.
b. To obtain, at low rates, opinions and analyses with regard to Manures, Soils, Feeding Stuffs, &c., from the Society's Consulting Chemist.
c. To obtain, at low rates, reports upon and results of examinations of Seeds and Plants, from the Society's Consulting Botanist.
d. To make, at reduced fees, an unlimited number of Stock and other Entries at the Society's Annual Exhibition.
e. To receive free an Admission Ticket to the Annual Exhibition (including also the Grand Stand and the Working Dairy) available for the whole term.
f. To use the Reading and Writing Room provided for Governors and Members attending the Annual Exhibition.
g. To take part in the Society's Experiments on Crops, &c., and to receive reports thereon.
h. To be admitted free to witness the Teaching and Competitions at any of the Society's Technical Education Schools.

Any person desirous of joining the Society can be proposed by a Member, or by the Secretary (THOS. F. PLOWMAN, 3, Pierrepont Street, Bath).

"That there should be one central Institute."

It was further resolved,—"That if a suitable site and buildings in the neighbourhood of Bristol be available, the Committee consider that place would be the best for the establishment of a central Institute; but if subsidiary Institutes were eventually to be established, the Committee consider that Hereford should be the place at which one such Institute should be established."

The Committee subsequently considered the objects which should be had in view in establishing an Institute, and unanimously agreed,—

"That the first object of the Institute should be the conduct of research, with the special view of the solution of difficulties expeienced by farmers in their ordinary practice of cider- and perry-making; and, in the second place, the training of experts competent to give them advice upon the spot of their own farms, and to act as staff instructors in the contributing counties."

It was then decided to seek for premises on an apple-producing farm, capable of adaptation to the purpose named, within a reasonable distance of Bristol, and the matter was placed in the hands of a small Sub-Committee. A considerable number of places were inspected, and their suitability considered, but eventually the Sub-Committee reported in favour of one at Long Ashton, near Bristol, which the owner, Lady Smyth, was kind enough to place at their disposal. The reasons which influenced them were, on the one hand, that buildings already existed there which only needed alteration and addition to make them all that could be required; and, on the other, that the neighbourhood seemed to present exceptionally favourable features as regards fruit-growing, so that the Institute, if established there, might not be solely dependent on cider-making for its success.

At a meeting of the provisional Committee, on 2nd April, 1903, the Report of the Sub-Committee was approved, and the site at Long Ashton agreed upon, subject to suitable terms being arranged with respect to it. The Committee then, in accordance with their original instructions, reported fully to the Board of Agriculture as to what it was proposed to do, what the annual cost would be likely to amount to, and how this might be met. They further suggested that, if the Board approved of their proposals, a copy should be sent by the Board to the County Councils and other bodies interested in the matter, asking them to consider the scheme, and notify what grants they would be prepared to make towards it.

This suggestion the Board readily acquiesced in, and on 16th April a letter was addressed to the various bodies concerned, enclosing a copy of the Report referred to, and asking whether they would be prepared to make the grants which it was esti-

mated would be required from each in order to defray the expenditure, calculated to amount to some 1,100*l.* per annum. The Board further made the important announcement that, in the event of the grants in question being promised, the Board itself would be willing to make an annual grant of 300*l.* towards the scheme.

Meanwhile negotiations were entered into with the estate, and also with the tenant, Mr. Richmond Harding, of the land which it was proposed to take. The Committee were met in a very friendly manner, the estate, indeed, agreeing to find the capital necessary to adapt the existing buildings to the new use to which it was proposed to put them, on payment of interest and the creation of a sinking fund; and the thanks of all concerned are due to Lady Smyth for the generous way in which their requirements have been met.

On 28th May, 1903, during the Show of the Bath and West Society at Bristol, a Conference of those interested in cider-making was held, when the subject of the proposed Institute was fully discussed. The scheme was cordially approved, and a resolution was passed commending it to the favourable consideration of the Society for an annual grant.

Ultimately, to bring the question of the financial position to a close, grants were promised by the following bodies:—

	£
Board of Agriculture	300
Bath and West Society	100
Devon County Council	100
Gloucester „ „	100
Hereford „ „	100
Somerset „ „	100
Worcester „ „	100
Monmouth „ „	50

The scheme is still under the consideration of the Cornwall County Council, while the Wiltshire County Council, who had not seen their way to support a purely Cider Institute (cider-making not being a local industry), on learning that fruit-growing would form an important part of the work, are reconsidering the matter.

In signifying their willingness to make an annual grant, the Bath and West Society made it a condition that the Annual Meeting of the Members of the Institute should be held in the Show-ground of the Society during the Annual Show; that any exhibits, educational or otherwise, that it was desired to make, should be made at the Show; and that the Society should be at liberty to publish any Reports emanating from the Institute. Needless to say, these conditions were gladly accepted by the Committee, and the hope may be expressed that, as time goes

on, an attractive exhibit from the Institute may form a distinctive and interesting feature of each Annual Show, and that the pages of the Society's Journal may be enriched by matters of a scientific and practical nature, which will be of real value to those Members whose interest lies in the direction of growing fruit and its utilisation when grown.

The question of the constitution of the proposed Institute naturally occupied the careful and close attention of the Committee. Two courses seemed to be open. Either the entire financial responsibility could be taken by one of the bodies concerned, under guarantees from the others, or a limited liability company of a non-profit making character could be formed, under licence from the Board of Trade, in conformity with the provisions of section 23 of the Companies Act of 1867. The latter course was deemed to be much the better, and a Memorandum and Articles of Association were prepared and the Board of Trade approached. From this office, and from their counsel, Mr. W. F. Phillpotts, every possible consideration was shown and help received. The former dispensed with every unnecessary formality, and the latter gave most willing and able advice as to the framing of the Articles.

The Memorandum of Association set out *inter alia* that—

The name of the Association is THE NATIONAL FRUIT AND CIDER INSTITUTE.

The Registered Office of the Association will be situate in England.

The objects for which the Association is established are:—

1. To investigate and demonstrate the best methods of cultivation of all kinds of fruit and vegetables; their habits of growth and leading characteristics; the best and most suitable varieties for all purposes, but, as regards fruit, with special reference to the manufacture of Cider and Perry.
2. To investigate and demonstrate the best methods for the utilisation of the above products, especially with reference to the manufacture of Cider, Perry, and kindred liquors; to promote and carry on research into the causes which affect the manufacture of any such products.
3. To improve the present varieties of fruit and vegetables, and to create and introduce new varieties.
4. To disseminate, as from time to time may be deemed desirable, by means of classes, lectures, or any other method, such results of investigation and research as may be considered likely to be of use.

5. To promote the general interests of farmers, fruit-growers and others connected with the growth and use of fruit and vegetables.
6. In order to carry out all or any of the afore-mentioned objects:—

(*a.*) To co-operate with the Board of Agriculture, County Councils, Corporations, Institutions and persons, and to receive grants, donations, subscriptions or legacies from the same. To make grants or contributions towards costs in connection with the objects of the Association, and generally to enter into such financial arrangements as may from time to time be deemed expedient.

(*b.*) To establish in the West of England, and to equip, maintain, and develop an Institute where investigation and research can be conducted, and instruction given, on matters relating to Agriculture, Horticulture, Arboriculture, and kindred industries, together with the sciences bearing on the same, and whence the results of such investigation and research can be generally disseminated.

(*c.*) To establish, equip, maintain, and develop subsidiary Institutes having similar objects, together with local stations of experiment, demonstration, or research.

(*d.*) To buy and sell such raw material or finished products as may be necessary for the efficient conduct of such Institute or Institutes.

(*e.*) To grant scholarships and to make payments towards the expenses of students, and to grant prizes for success in competitions or other efforts which may seem conducive to the objects previously mentioned.

(*f.*) To provide for the holding of examinations and the awarding of certificates and distinctions, but so that the Association shall not grant diplomas or titles, and that all certificates shall show on the face of them that they merely certify the result of an examination held on behalf of the Association.

(*g.*) To publish, or aid in publishing, and to pay the cost of publishing such literature as may be

regarded as dealing with or bearing on, the objects previously mentioned.

7. The doing of all such lawful things as are incidental or conducive to the attainment of the above objects.

The Memorandum also sets forth that the income and property of the Association, whencesoever derived, shall be applied solely towards the promotion of the objects of the Association as set forth in the Memorandum of Association; and no portion thereof shall be paid or transferred directly or indirectly, by way of dividend, bonus, or otherwise howsoever by way of profit, to the Members of the Association. Provided that nothing shall prevent the payment, in good faith, of remuneration to any officers or servants of the Association, or to any Member of the Association, or other person, in return for any services actually rendered to the Association.

This last paragraph embodies the condition on which a licence is granted by the Board of Trade.

The Articles of Association, as finally settled with the Board of Trade, include the following points:—

The Association consists in the first instance of Members. Their qualification is the contribution of not less than 1*l.* 1*s.* per annum, but, in the event of the Association being wound up, they might be liable for a sum *not exceeding* 1*l.* 1*s.* beyond their yearly subscription.

Persons desirous of becoming Members must be proposed and seconded by a Governor, and their election must take place at the Annual Meeting. They must also be elected by a majority consisting of not less than two-thirds of those present and voting at the Annual Meeting.

Provision is made for holding these Annual Meetings once in the year 1904, and in each succeeding year, in the Showyard of the Bath and West Society during such Society's Annual Exhibition, if, and so long as, the Society makes an annual contribution to the funds of the Association and grants to the Association facilities for holding such meetings in the Society's Showyard, otherwise Annual General Meetings shall be held at such time and place as may from time to time be prescribed by the Governors.

Members have the right to visit the Institute at all reasonable times and to receive all the publications issued therefrom, but those whose subscriptions are in arrear for twelve months will cease to belong to the Association.

In addition to Members, provision is made for admitting any persons, interested in the fruit-growing or cider industry, to all privileges previously mentioned, and to such others as the

Governors may from time to time determine, but without such persons becoming Members of the Association. They will be called Associates, but will have no votes or voting power, this provision being made in order to avoid their having any liability whatever in event of the Association being wound up.

The rules governing the election of Associates are the same as those governing the election of Members, and they are required to make an annual contribution of 5*s.* each to the funds of the Association, but their privileges will cease if such contribution is withheld for twelve months.

It is arranged that the business of the Association will be carried on by, and be under the direction of the Governors, who must be "Members" of the Association. The first Governors are the members of the original provisional Committee, and they will hold office till the Annual Ordinary Meeting to be held in the year 1904. At this Meeting which, as previously mentioned, will be held at the time of the Society's Show, and in the Showyard, the Governors will be appointed as follows:—

(*a*) Every County Council contributing to the funds of the Association shall nominate one Governor for every 50*l.* annually contributed.
(*b*) The Council of the Bath and West Society shall nominate Governors on similar terms.
(*c*) Any other Corporation or individual may be permitted to nominate a Governor or Governors at the discretion of the existing Governors on terms to be decided by them.
(*d*) The Board of Agriculture shall nominate three Governors.
(*e*) The Members may elect three Governors from persons interested in the fruit-growing or cider industry.
(*f*) The Governors as above appointed may co-opt three other persons to be Governors.

The Governors are to hold office for three years, but one-third retire each year at the Annual Meeting.

The Governors must meet not less than twice a year—one such meeting must be in the Showyard of the Bath and West Society after the Annual Meeting of Members of the Association.

At every such last-mentioned meeting, the Governors are to elect a Managing Committee, to whom they shall delegate such powers as they may from time to time deem desirable, such Managing Committee to consist of seven Members selected from amongst their number, of whom one at least shall be one

of the Governors, if any, nominated under (*b*), and one at least shall be one of the Governors nominated under (*d*).

As this is something of the nature of an historical record, it may be permitted to add that the names, addresses, and descriptions of those subscribing to the Articles (which were witnessed and dated on 12th October, 1903) were:—

CHARLES THOMAS DYKE ACLAND, Killerton, Exeter; Baronet.
HENRY HOBHOUSE, Hadspen House, Castle Cary; P.C., M.P.
G. E. LLOYD-BAKER, Hardwicke Court, Gloucester; J.P. for the county of Gloucester.
G. W. RADCLIFFE COOKE, Hellens, Herefordshire; J.P. for the county of Hereford.
E. VINCENT V. WHEELER, Newnham Court, Tenbury; J.P. for the county of Worcester.
W. J. GRANT, Pentonville, Newport (Mon.); Agricultural Secretary, Monmouthshire County Council.
R. NEVILLE GRENVILLE, Butleigh Court, Glastonbury; J.P. for the county of Somerset.
FREDERICK J. LLOYD, Muscovy House, London, E.C.; Analyst.
A. E. BROOKE-HUNT, Board of Agriculture, London, S.W.; Superintending Inspector.

On 15th October, 1903, precisely one year from the date of the Bristol Conference, the Board of Trade wrote granting their licence, and on 26th October the Association was registered at Somerset House, and the Institute was incorporated and became an accomplished fact.

The provisional Committee held their last meeting on 28th October. They had met in all seven times, beside numerous meetings of sub-committees. The share the writer took in the work, exceedingly pleasant though it was, fell simply within the bounds of his regular duty, but the thanks of all interested in the matter are due to the other members of the Committee, who, amidst very busy lives, yet found time and spared no pains to carry the project through to a successful issue.

The Institute thus started consists of an unpretentious but withal pleasing-looking building which originally comprised a cart shed, and a fowl or pigeon house, the first acquaintance with which was *not* altogether pleasing. Thanks to Mr. H. B. Napier, to whose sympathy and interest the writer desires to record more than a passing word of thanks, and to his able Clerk of the Works, Mr. Stone, a complete transformation has taken place. The cart-shed has become the house for the cider mill and kindred machinery, the fowl-house has been converted into an excellent cellar, while outside is a large yard, open to

the air but otherwise enclosed and roofed, where the first fermentations will take place. Over the main buildings are two good lofts for the storage, &c., of apples. On one side is an engine-house, and in front is a laboratory. A cottage adjoining has also been rented.

A short carriage-drive leads up from the main road, and it is eventually intended to make this little approach somewhat ornamental as well as useful. The place is 4½ miles from Bristol Station, and 1¼ from Flax Bourton Station. The tram line from Bristol comes to within 2½ miles, but the terminus of a service of omnibuses is only about a quarter of a mile away.

As the premises have not yet been fitted up with machinery it is unnecessary to describe them further, but they are situate at one side of a field, rather more than 4 acres in extent, which is now being planted as an orchard. In the first instance, two systems are being tested, viz., the Herefordshire system, whereby a tree grafted with the particular variety desired is planted straight away (the disadvantage being that the particular variety used may not necessarily make a good standard tree), and the Somerset system, whereby a stock worked at the bottom with a variety which is known to make a good standard is planted, and, when the head is sufficiently grown, grafted with the cider variety desired (the disadvantage being a loss of some time at the beginning). In all some two hundred trees are being put in, and these include about eighteen or twenty distinct varieties. Experiments will be made as regards the most profitable amount of ground round the stems to be left bare for the first six or eight years, and also as regards different methods of fencing against stock, some three or four ways being adopted.

The next field included is an old orchard of about 5 acres, which sadly needs taking in hand, while the remaining field—of which some 4½ acres will be available after allowing for a right of way for cattle—is being broken up, and, to begin with, one acre is being developed as a nursery plantation and one acre as the commencement of what may be termed a "fruit plantation." For the portion at present devoted to the nursery plantation some 13,000 stocks have been purchased, viz., 5,000 free stocks, 5,000 crab stocks, 1,000 broad-leaved English Paradise stocks, and 2,000 pear stocks for the production of perry pears. These will be worked with a selection of the best known varieties, about which the utmost care will be taken, so that in course of time a large quantity of carefully selected stocks will be raised, absolutely true to name, and available as grafts for farmers and nurserymen throughout the district. The Paradise stocks will be used to bring the varieties more quickly into bearing, so that they may be more

readily identified. Beyond this, trees of the different varieties will be grown and an endeavour made to get these planted out in orchards in various parts of some, if not all, of the contributing counties, so that it may be possible to compare their growth in different parts and altitudes and in different soils. Then, when a farmer comes to the Institute and asks what varieties are recommended, he can be told which have done best on soils similar to those of his own district.

Furthermore, it is hoped in course of time that practically every known variety may be propagated, the habit of growth of the tree and the character of the fruit carefully noted and classified, and varieties which are practically the same under different names brought together under one, so that the Institute will really become a place where all information respecting varieties that it is possible to acquire will be available for the benefit of those who desire it.

It is intended to develop the "fruit plantation" as a place where fruit of all sorts, other than cider and perry fruit, may be grown. Here persons may be shown the most profitable way of laying out land with fruit ranging from standard apples and pears down to strawberries, the growth of leading varieties of dessert or culinary fruit may be tested as regards that particular soil, and different systems of training and pruning may be demonstrated.

Space will not permit of my entering more fully into the various problems which may engage attention in these several plantations, or into the possibility which has already been mooted of a scheme of devolution, involving the placing of orchards, old or to be formed, in different parts of the contributing counties under the definite advice, or even the control of the Institute. This is a matter which may worthily engage the attention of landowners in those districts.

By kind permission of the Somerset County Council, the whole of the fruit-growing department has been placed under the superintendence of Mr. John Ettle, F.R.H.S., at any rate for the present, and there is a resident foreman who works under him. An old author who wrote much on the dignity and value of fruit trees and the art of planting them, says, "Exercise in the "work of planting fruit trees, with moderate use of Cider and "Perry, are the most effectuall naturall means for attayning "health and long life." The horticultural staff have not yet had the opportunity of indulging in the products manufactured by the Institute, but, judging from what there is to do in the way of planting, they should certainly, so far as exercise is concerned, stand a very good chance of attaining the two advantages above mentioned!

With reference to the scientific staff, the Governors have held one meeting and have asked Mr. F. J. Lloyd, F.C.S., F.I.C., to whom so much is already due, to undertake the post of non-resident Director for the next two years, and have appointed Mr. B. T. P. Barker, M.A., of Gonville and Caius College, Cambridge, who, after an exceptionally creditable career at the University, has made the subject of yeasts and ferments his particular study, to the post of resident Assistant Director, for a similar period. At the end of that time the Governors will be in a better position than at present for estimating the scientific requirements of the place.

Thus the Institute is now fairly launched. It is beginning, as most things do which really last, in only a small way, but the potentialities are great; and it is hoped that its career may be one of increasing usefulness, not only to this generation but to others which are to follow.

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